ABSTRACT

A molded foam-encased integrated flexible support device includes an innerspring positioned upon a three-dimensional thermoplastic foam deck as a flexible foundation, and a molded foam encasement which structurally integrates the foam deck with the innerspring by attachment to perimeter coils of the innerspring. A sculpted foam topper is adhesively bonded to a support surface of the foam-encased innerspring, forming a unitized mattress or support structure with fully integrated innerspring and internal and external foam components. The sculpted foam topper is designed with varying contours and densities to provide the desired support and feel characteristics for different comfort profiles. The foam encased innerspring with internal three-dimensional foam structures is upholstered for use as a mattress, seating, or other flexible support structure.

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